UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
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NEW YORK, NY 10007-1866

SEP - 3 2015

Catherine Alcoba
Project Biologist
U.S. Army Corps of Engineers - Planning
26 Federal Plaza, Room 2151
New York, NY 10278

Dear Ms. Alcoba:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement (DEIS) for the South Shore of Staten Island Coastal Storm Risk Management project (CEQ # 20150175) in Staten Island, Richmond County, New York. This review was performed in accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA).

The U.S. Army Corps of Engineers (USACE), in cooperation with the New York State Department of Environmental Conservation (NYSDEC), is proposing to implement the National Economic Development Plan (NEDP) for coastal storm risk management on the south shore of Staten Island. Under Phase I of the NEDP, the USACE plans to construct a Line of Protection (LOP) against severe coastal surge flooding and wave forces along 5.3 miles of shoreline between Fort Wadsworth and Oakwood Beach. Construction is expected to occur over a 3 to 4 year period.

The majority of the LOP will consist of a buried seawall/armored levee, with the remainder consisting of a T-type vertical floodwall. The Oakwood Beach area will also be protected by a variety of habitats that include tidal wetlands, maritime forest/scrub-shrub habitat, and low marsh and high marsh acres of living shoreline. The NEDP includes additional construction of a raised promenade, vehicle and pedestrian access structures and, to manage inland flooding, tide and sluice gates, drainage control structures for existing stormwater outfalls, elevated road beds, and ten excavated ponds.

Impacts of the proposed project and mitigation and benefits include:

- Disturbance of approximately 243 acres; consisting of 51 acres for construction of LOP; 188 acres from excavation of ponds; and four acres for elevating roadways.
- Temporary increase in suspended sediment and turbidity in surface waters adjacent to the project areas under construction. Exclusion fencing and erosion and sediment control measures will be used to protect surface waters to the extent possible. Improvements in control and containment of stormwater runoff control resulting from the project will provide long-term flood prevention benefits to the surrounding developed areas.

- Minimal removal of trees and site grading. Loss of vegetation will be mitigated by replacement of trees and restoration of disturbed areas with native plant species. Invasive species such as common reed, or phragmites, will be removed during construction.
- Fill and disturbance of 28.7 acres of freshwater wetlands. This includes fill of 10.9 acres of natural freshwater wetlands, use of 5.6 acres as permanent easements, and temporary use of 12.2 acres for construction easements. The USACE plans to offset the loss of this habitat with construction of 46 acres of tidal wetlands and creation of new surface water habitats during pond excavation.
- Minimal, temporary disturbance of wildlife habitats in areas under construction.
- Disturbance of soil and groundwater in areas where prior use, research, and testing have indicated a potential for the presence of hazardous materials. The USACE would continue to closely coordinate with the National Park Service (NPS) to ensure that there are no cross-connecting impacts between the NEDP construction and NPS' ongoing cleanup of radioactive contamination within Great Kills Park.
- Temporary increases in diesel emissions from construction equipment and delivery trucks moving to and from the construction site.
- Greenhouse gas emissions from construction equipment and delivery trucks moving to and from the construction site.

The EPA recognizes that implementation of the NEDP will reduce the adverse impacts of major storm events on the south shore of Staten Island, preventing loss of human life and reducing the substantial costs of recovery from natural disasters. It is important that the USACE make every effort to avoid, minimize, and mitigate any adverse environmental impacts during design, construction, and operation of the NEDP. We have the following comments to be addressed in the final EIS.

1. Monitoring, maintenance and stewardship of the created natural features of the project (wetlands, maritime forests, etc.) will be necessary for the long term in order for these features to remain functional and to provide resiliency as designed. The DEIS states that the non-federal sponsor will be responsible for maintenance. The final EIS should identify specifically how this monitoring and maintenance will be done, how this will be financed and for what time period.

2. Please clarify the planting scheme for the excavated flood storage areas and estimate the amount of open water that will be present under normal conditions.

3. We understand that the Oakwood Creek tide gate would typically be in an open position to allow for tidal flushing, but would only be actively closed under potential storm surge conditions. Please confirm that this is true.

4. It is our understanding that there is no work planned for the wetland area on the inland side of the Oakwood Creek tide gate. Please confirm the intended as built condition of this wetland area.

5. Page 4-14 of the DEIS discusses a proposed construction/restoration of a 46 acre mix of tidal wetlands, shrub, maritime forest and dunes at Oakwood Beach. Of this 46 acre total,

it appears that about 19 acres will be low and high marsh. However, Table 4-3 and other locations in the document and public slide presentation imply that the total 46 acres will be tidal wetlands. Please clarify this in the final EIS.

6. It is our understanding that the existing Oakwood Beach tide gate would be removed to allow for flushing of the proposed 46 acre restoration. Is the area landward of this structure currently freshwater wetland?

7. If it has not already been done, we recommend that a hydrologic study be undertaken to determine if there will be adequate tidal flushing to maintain the constructed low/high marsh area. We recommend reporting the results in the final EIS

8. It is our understanding that no forested wetlands will be impacted by excavation or other aspects of this project. If our understanding is accurate, we recommend confirming this in the final EIS.

9. The existing New York City Bluebelt plan focuses on managing stormwater and habitat restoration in many of the same areas that the USACE plan proposes to do work in, especially the areas to be excavated. Clearly explain how the USACE plan fits into the Bluebelt plan.

10. Please provide a table that explicitly describes the acreage of each type of habitat/wetland that is being lost or converted in each segment and what is being created/restored in each segment. Please include a calculation of the wetland creation/restoration to loss ratio.

11. As identified in Section 3.12 of the DEIS, the NEPD project site demonstrates high potential for discovery of hazardous and toxic materials during construction. We encourage the USACE to provide in the final EIS detailed information on the results of the comprehensive research conducted for the project and the 2003 and 2013 environmental site assessments, including identification of contaminants and locations and levels at which they were discovered. In addition, we recommend the USACE include a plan for management of any hazardous materials that are discovered during construction. The plan should identify the procedures and practices that will be employed to prevent and, if necessary, respond to exposure of workers and residents to contaminants.

12. Construction activities will result in increased diesel emissions in residential areas adjacent to construction sites. We recommend implementation of idle-reduction policies and the use of cleaner fuel and cleaner diesel control technology to reduce particulate matter (PM) emissions on non-road and on-road diesel powered equipment used at a site. Alternative fuels such as biodiesel or natural gas-powered vehicles can also be considered.

13. We believe the Council on Environmental Quality's December 2014 revised draft guidance for Federal agencies' consideration of greenhouse gas (GHG) emissions and climate change impacts in NEPA outlines a reasonable approach, and we recommend that USACE use that draft guidance to help outline the framework for its analysis of these

issues. Accordingly, we recommend the final EIS include an estimate of the GHG emissions associated with the project, qualitatively describe relevant climate change impacts, and analyze reasonable alternatives and/or practicable mitigation measures to reduce project-related GHG emissions. The final EIS should make clear whether commitments have been made to ensure implementation of design or other measures to reduce GHG emissions or to adapt to climate change impacts.

14. Estimate the GHG emissions associated with construction of the proposal and its alternatives. Example tools for estimating and quantifying GHG emissions can be found on CEQ's NEPA.gov website. For actions which are likely to have less than 25,000 metric tons of CO2-e emissions/year, provide a qualitative estimate unless quantification is easily accomplished. In most cases quantification of GHG emissions involves a relatively straightforward calculation.

15. The estimated GHG emissions can serve as a reasonable proxy for climate change impacts when comparing the proposal and alternatives. In disclosing the potential impacts of the proposal and reasonable alternatives, consideration should be given to whether and to what extent the impacts may be exacerbated by expected climate change in the action area, as discussed in the "affected environment" section.

16. Describe measures to reduce GHG emissions associated with the project, including reasonable alternatives or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures; for example, construction of the saltwater wetlands. EPA further recommends that the Record of Decision commits to implementation of reasonable mitigation measures that would reduce or eliminate project-related GHG emissions.

Based on our review and in accordance with EPA policy, we have rated this DEIS as EC-2, indicating that we have environmental concerns (EC) regarding the identification and potential release of contaminants and hazardous materials discovered during construction and that the DEIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment. As discussed above, the final EIS should include a management plan for hazardous materials that also addresses worker and resident safety, information on the monitoring and maintenance of the constructed tidal wetlands, clarification of information on the flood storage areas, and analysis of the GHG emissions and climate change impacts associated with the project. Thank you for the opportunity to comment on this project. If you have any questions, please contact Shane Nelson at (212) 637-3130 or nelson.shane@epa.gov.

Sincerely,

Judy-Ann Mitchell, Chief
Sustainability and Multimedia Programs Branch